Info Note

Lessons learnt from CCAFS - 10 years scaling climate-smart agriculture

Insights from the review of CCAFS scaling activities, 2019

Jana Koerner, Dhanush Dinesh, Ana Maria Loboguerrero, Bruce Campbell

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Key messages

- CCAFS has been pioneering management, partnership, and learning approaches for scaling CSA since its beginning.
- After ten years' implementation, lessons learnt of practitioners validate two concepts that CCAFS has used and developed for scaling CSA:
- The Three-Thirds Principle for effective science-policy engagement (Dinesh et al. 2018) applies widely for scaling CSA, when adding the element of iterative learning.
- The LearningWheel with 11 cornerstones for effective research and development to improve livelihoods and the environment (Campbell et al. 2006) is a useful framework for managing not only R4D, but also scaling processes.

CCAFS started in 2009 as a CGIAR Global Challenge Program. The original focus was on researching climate-smart agriculture (CSA) as a solution to the increasing threats of climate change to agriculture and food security. Increasingly, CCAFS invested in efforts for bringing the adoption of CSA to scale, with finally the aim of "scaling CSA" becoming integral part of CCAFS' Phase II strategy and philosophy since 2017. Measures to promote these objectives among CCAFS' and CGIAR's project implementers, partners and the wider international development community, were among others:

- Pioneering results-based management and the online platform MARLO (Managing Agricultural Research for Learning and Outcomes);
- Driving institutional change, e.g. by promoting the Three-Thirds Principle for investing a third of resources in each of engagement, evidence building and outreach activities (see figure 2), with a subsequent change in staff and project key performance indicators.
- Incentivizing innovative initiatives, e.g. with seed funding for prototyping, competitive calls and prizes;
- Establishing innovative partnerships and forms of cooperation; e.g. becoming a cornerstone investor of the Althelia Biodiversity Fund Brazil, to support new economic models that promote biodiversity;
- Providing unconventional spaces for learning and exchange, e.g. by coining the "un-conference" format.

Learning from scaling practitioners

With CCAFS working across all different sectors and levels, and on a multitude of climate-smart technologies and practices, scaling pathways and lessons learnt can be quite context specific. However, when in 2019, more than 20 practitioners from CCAFS projects of 14 CGIAR centers and partners, shared their experiences at the occasion of a review of CCAFS scaling activities, some lessons could be distilled that widely apply for the "art of scaling". What is more, these lessons validate two concepts used and developed by CCAFS with the aim to maximize the development impacts of its research.

Climate-smart agriculture between context specificity and impact at scale

The difficulty and richness of scaling CSA lies in its high diversity and context specificity. Rooted in the principles of agro-ecology, CSA technologies and practices can provide solutions to a large range of climate change-induced impacts, or threats of these for agriculture. However, what is climate-smart in one situation, might not be in another.

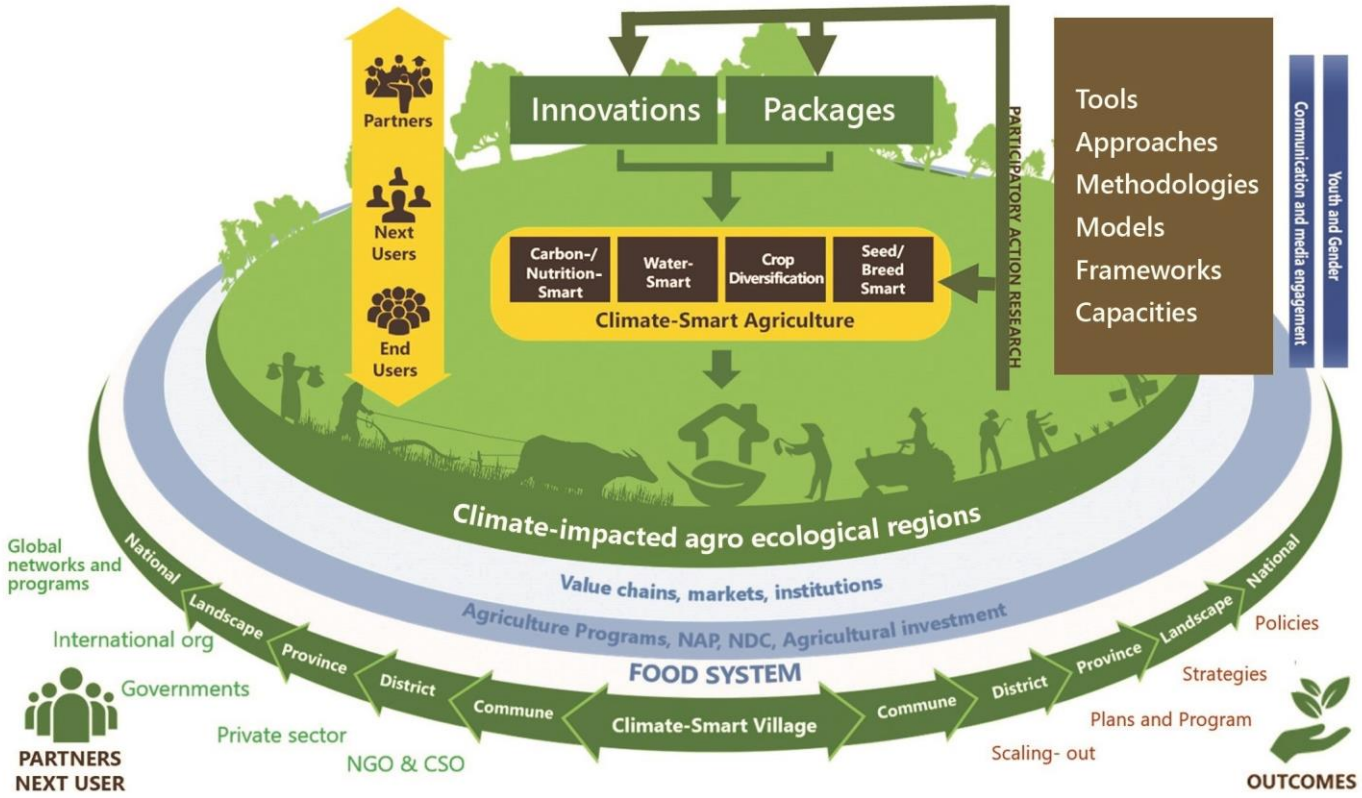

Figure 1: Scaling climate-smart agriculture in food systems, adapted from Sebastian and Bernardo, 2018

Taking place in the wider context of transforming food systems, actors with leverage often do not focus directly on scaling CSA technologies and practices, but rather on providing tools and evidence, strengthening capacities and enabling the environments, so that wide take-up of CSA can happen. These efforts translate into a range of packaged solutions, designed for and with the partners, next users and farmers, always seeking to respond to the small holder farmers' needs.

Farmers' uptake of CSA often does not depend on a single intervention, but is also influenced by a variety of factors in the food system, including economic, social and cultural diversity. Partners and next users come from the different sectors, and tackle different leverage points at the food systems, from local to national and global levels, and back (see figure 1). Different decision making mechanisms again require different incentives and approaches

This set-up defies pre-defined and fixed scaling pathways. However, a set of principles and mechanisms exist, that apply widely and are validated by CCAFS participants and partners from practicing scaling CSA of the last 10 years.

Three-Thirds Principle

Not to re-invent the wheel! Many general lessons for scaling CSA fit into Three-Thirds Principle for science-policy engagement (figure 2), which puts equal importance to engagement, evidence building and outreach activities:

Engagement

- **Targeted & demand driven**

User-centric approaches will prioritize innovations with tangible benefits for the farmers, mitigating their risks, and responding to their needs and environments. Joint needs assessments with end users and partners are key for setting the priorities right. Albeit this will initially consume time and efforts, it will save time and money in the end.

- **Participatory approaches**

Engaging all stakeholders from the very beginning in all processes is crucial, but with different intensity at the different times from planning until evaluation. Empowering users and partners by co-designing, and sharing the budget and decision-making helps stakeholders own the approach and creates robust scaling mechanisms.

Evidence

- **Scientific credibility**

Evidence is at the heart of all innovation and scaling processes! Different partners need different types and robustness of evidence at different stages, and for different purposes. Scientific credibility is key. For scaling, though, peer exchanges (e.g. "farmer-to-farmer" or "farmer-to-policy maker") can also be important sources of credibility.

- **Opportunism and flexibility**

Although planning helps, opportunities often arise unexpectedly, beyond control. Serendipity means to be at the right place at the right time, and ready! Thus, integrate scaling efforts into existing systems – and keep them adaptable to quick priority changes.

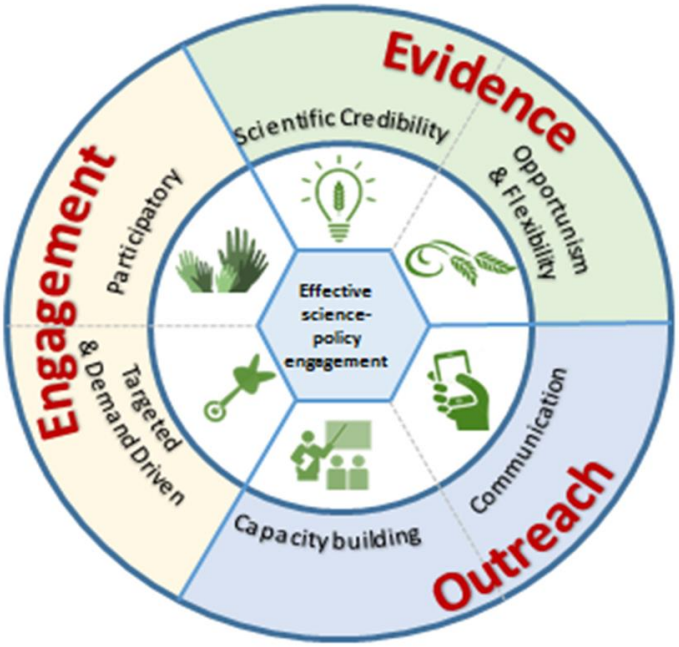

Figure 2. CCAFS Three-Thirds Principle for science-policy engagement (Dinesh et al. 2018)

Outreach

- **Communication**

Tailor communication outputs to the different stake-holders, levels and intended purpose, and adapt to the language and vocabulary of the targeted audience. Sometimes, evidence will not lead to action. Try not to be descriptive. People determine on their own what is best for them and like to "figure it out themselves".

- **Capacity building**

Capacity building requires a system-level approach, especially when aiming at reducing the dependency from researchers, and therewith from external funding. Increasing the leverage of local skills for scaling is crucial, e.g. by designing university courses, as local scientists can accelerate and sustain the scaling processes.

The LearningWheel for effective R4D

Perhaps what is not covered in the Three-Thirds Principle is the element of iterative learning, and how this can affect and improve daily work, approaches and management. As early as 2006, later CCAFS leaders identified eleven corner stones for navigating complexities in R4D, displayed in form of a LearningWheel, where each aspect systemically interacts with the others. Today's lessons show that these cornerstones are as relevant as ever:

Lessons for working together

- **Shared focus and narrative for scaling**

Increasingly, global focus shifts from scaling certain innovations, to achieving sustainable change at scale. Scaling is not a straight line, even single projects have to cover different areas. Scaling is rather a "series of synergies and momentums" towards achieving impact.

- **Partnerships with scale in mind**

Partners are best chosen for a shared vision, scaling mindset and their respective contributions. They also bring different necessities for the forms of cooperation. The potential of intermediaries and social movements is under-researched.

- **Teamwork across sectors and disciplines**

Increased complexities require trans-disciplinary teams, with emphasis on social sciences, but also management skills for scaling. Good practices to empower the teams are regular reflections and encouraging entrepreneurship of (new and/or young) staff that enjoy going to the field.

- **Facilitation and translation**

A lot of success today has roots in long-term trust- and relationship building (5-25 years). With new partners and networks, time and resources might be needed to invest in "levelling or help levelling the playing field". Champions of the different stakeholders' institutions can facilitate and speak the respective languages.

Institutional framework and management

- **Governance for impact**

When funding structures do not support scaling, good practice is to have a core project, and several smaller ones, e.g. to cover the gaps of seed funding/prototyping, feasibility studies, follow-up transaction costs and impact assessments. The varying maturity of science and the different operational modes of partners and stakeholders can lead to leapfrogging or delays in implementation.

- **Adaptive management**

Holding on to the vision and objectives while allowing flexibility in the pathways and attached deliverables is crucial. Managing relationships includes to negotiate different interests. Change management in one's own and the respective champions' institutions can reduce pressure on individuals and open up non-traditional pathways.

Improving approaches to the task

- **Information for scaling/ assessing scalability**

Evidence that an innovation's is scalable needs to prove a clear added value compared to existing or competing new solutions. Useful are e.g. cost benefit analyses and farmers/consumers' willingness to pay. Perfect scaling information further includes e.g. stakeholder mappings, process analyses, market studies, and social, economic and environmental scenarios.

- **Learning and knowledge management**

Learnings from previous projects include both success and failure stories. They need to be shared cross-regions and cross-topics, and applied in new projects. The difficult part in knowledge management is less the sharing, but maintaining participants' commitment. E.g. communities of

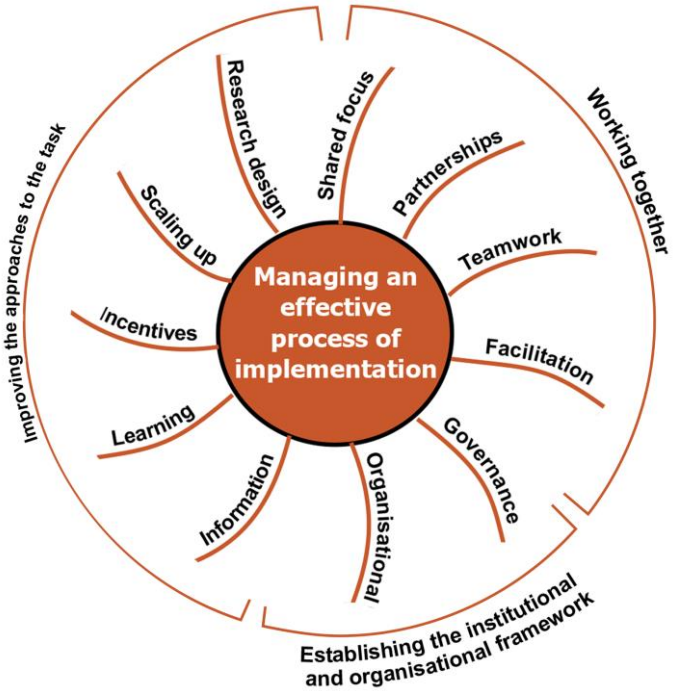

Figure 3: *The LearningWheel for effective research and development (Campbell et al. 2006)*

practice need a clear aim and direct benefit for partners to invest time and resources.

- **Incentives and scaling mindset**

Not only user- but stakeholder oriented: Finding the sweet spots of all stakeholders that have a major interest in that particular domain can create incentives and multiple-wins. A "scaling mindset" will move people away from the theoretical debate to actually trying out things. Once feeling the entrepreneurial dynamics, people tend to enjoy the energy and being part of "something big".

- **Targeted and responsible scaling**

Not everything needs to be scaled. Innovations can also have an optimum scale for delivering the wished benefits. Scaling also means scaling risks. How to assess the unknown? Partners can help to develop and apply "do-no-harm" and responsible scaling approaches.

- **Research design and implementation**

Theories of change need to be based on systems analysis, involve stakeholders' networks, reflect the inter-connectedness of factors, and enable iteration. Partner agreements can provide continuous M&E along the scaling process, including regular checks on assumptions, and should negotiate the value of contribution versus needs of attribution.

Further reading and references

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This Info Note is based on the insights of the CCAFS core team, lessons shared by project leaders via the MARLO, and interviewees from the following CGIAR centers and partners: Bioversity, CIAT, CIMMYT, CIP, ICARDA, ICRAF, ICRISAT, IFPRI, IITA, ILRI, IRRI, IWMI, WorldFish, and WUR.

On the authors:

Jana Koerner (j.korner@cgiar.org) is the CCAFS scaling officer and member of the CGIAR/GIZ Task Force on Scaling.

Dhanush Dinesh (d.dinesh@cigar.org) is the CCAFS global policy manager.

Ana Maria Loboguerrero is the head of CCAFS global policy research (a.m.loboguerrero@cgiar.org)

Bruce Campbell (b.campbell@cgiar.org) is the director of the CCAFS.

About CCAFS Info Notes

The CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) brings together some of the world's best researchers in agricultural science, development research, climate science and Earth system science, to identify and address the most important interactions, synergies and tradeoffs between climate change, agriculture and food security. Visit us online at **https://ccafs.cgiar.org**.

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